

THE CHESAPEAKE AND OHIO CANAL

BY

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## PREFACE

Since the subject of the Chesapeake and Ohio Canal has been more or less dormant for the last half century, it was difficult to obtain recent authorities in the research of this subject. The following were consulted freely:

"The Early Development of the Chesapeake and Ohio Canal Project," by George Washington Ward, Ph.D. and Professor of History in Western Maryland College. This paper consists of numbers nine, ten, and eleven of series seventeen of Johns Hopkins University Studies in Historical and Political Science, published in 1899 by the Johns Hopkins Press, Baltimore, Md. In a lengthy discussion, the early phases of the of the canal history is covered thoroughly, main stress being laid on its relationship to contemporary American History.

"Historic Highways of America", by A. B. Hulbert; (volume 13 pp. 65 - 168); published by A. H. Clark Co., Cleveland, Ohio; 1904. Professor Hulbert (1873- ) is an authority on the history of the development of routes of transportation in America. He has taught history at Marietta College, Clarke University, Colorado College, University of Chicago, Columbia University and other institutions. His treatment of the subject was more general than that of Professor Ward; he was also inclined to adhere more closely to the facts as set forth in the sources that the writer was able to consult.

The sources which were consulted consisted of the various reports rendered by the Chesapeake and Ohio Canal Company to its stockholders at various times, i.e., in 1831, 1836, 1844, 1851, and 1871. These were printed by Gales and Seaton, Washington, D. C. Of these, the report of 1851, immediately after the completion of the canal, was richest in material, containing a historical sketch of the project.

After the early part of the twentieth century, no authoritative writings were devoted to the subject of the canal. For the facts concerning the canal during that time the writer was forced to depend on newspaper articles, nearly all of them from the Washington Star, a paper of good repute as to its truthful representation of facts. These clippings were found at the Carnegie Library, Washington, D. C., as were also the weekly articles of "The Rambler", who contributes to the "Washington Star" articles on subjects of historical interest in and about Washington, some of these dealing with the canal.

The writer is indebted to the Marland State Librarian for the information concerning the release of the State's interest in the canal. No information of any historical value could be obtained from the company's offices in Washington, for the whole management appeared to be without system or organization, and what little could be found out by conversing with old employees, coincided with the statements as made by the authorities that were consulted.

S.L.

January 14, 1925.

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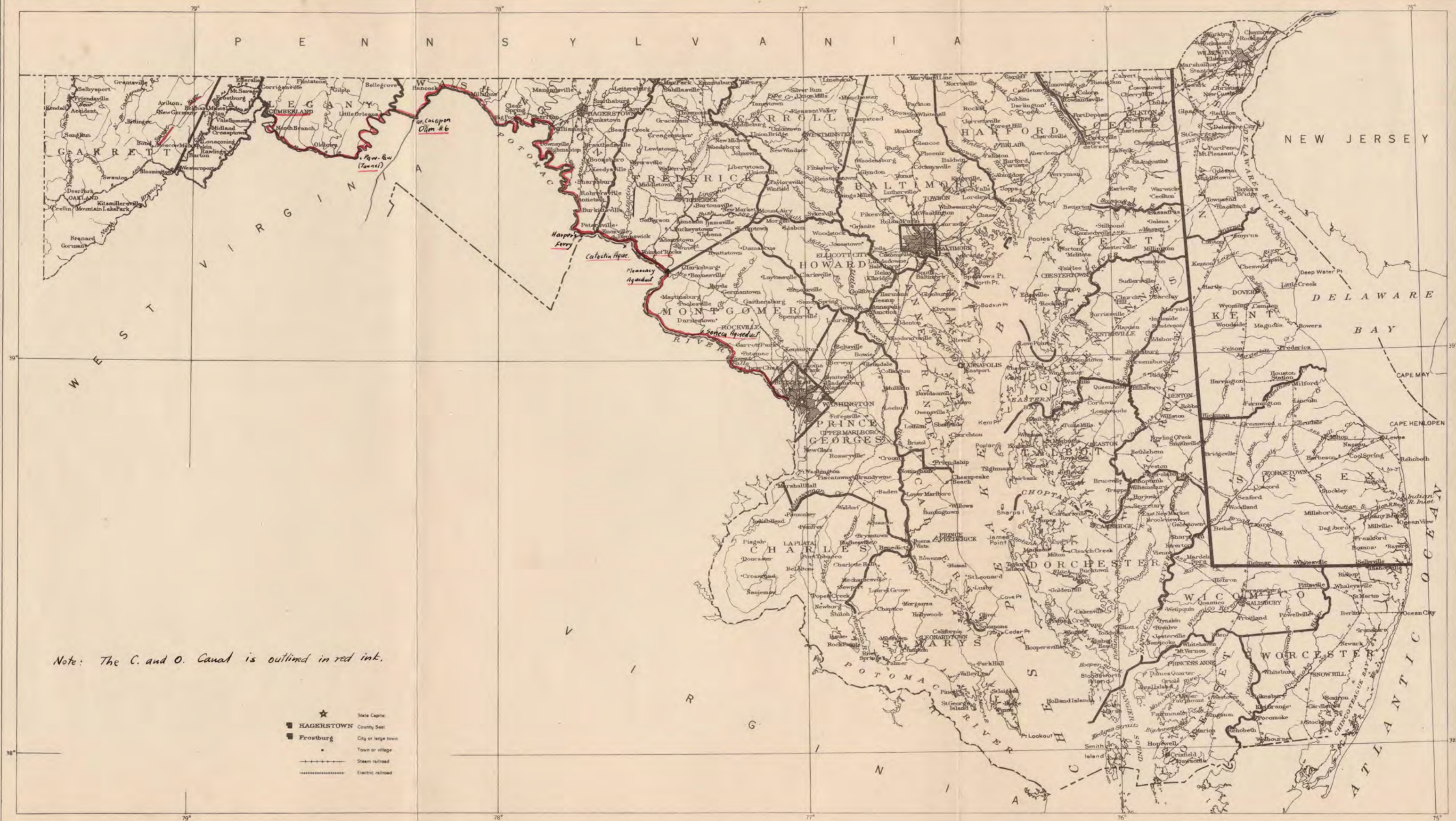
## THE CHESAPEAKE AND OHIO CANAL

The Chesapeake and Ohio Canal, as it is known to-day, is the body of water that extends along the northern shore of the Potomac River from Cumberland, at the eastern base of the Alleghany Mountains, to Georgetown in Washington, near the head of the tidewater levels of the Potomac River. This canal serves to overcome a difference in level of five hundred seventy-eight feet between its terminals, which are one hundred eighty-six miles apart, its navigability being effected by a source of water supply from the Potomac River, and by means of seventy-four locks to overcome the difference in elevation. The history of this canal, or rather its embryo, may be traced back to the early days of our country. To give a general account of the historical and physical development of this canal, and to describe the vicissitudinary stages that it has passed through to the present day, will be the purpose of this thesis..

The idea of the Chesapeake and Ohio Canal had its inception in the belief that the shortest route from the Ohio Valley to the seaboard was by way of the Monongahela and Potomac Rivers, and that this route would be the means by which both transportation and communication could be most easily effected between the lands east and west of the Alleghany Mountains. This fact proved weighty enough to cause General Braddock to advance against the French at Fort Dusquene in 1755 through the rugged and unsettled country of Maryland, along the Potomac, in preference to the longer but more easily traversible route through Pennsylvania. It was George Washington himself that aroused the interest of both Maryland and Virginia in the direction of making the Potomac

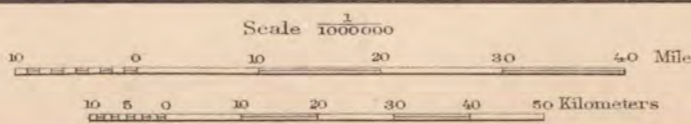
River navigable as far as Cumberland, and from there to jointly maintain a road reaching westward. Both states acted on this suggestion and a joint committee, with George Washington presiding, met in December of 1784. The result of this meeting was the Potomac Company, which was incorporated by Virginia and confirmed by Maryland. It was organized in May 1785 with George Washington as president, and with its purpose set to clear the channel of the Potomac for navigation as far as Cumberland.

The Potomac Company had too many obstacles to overcome in its work "for opening and extending the navigation of the Potomac River," to prosper. The greatest of these hindrances were at Little Falls, five miles above Georgetown, and at Great Falls, seven miles higher up, where the rocks in the channel and the swiftness of the current made navigation impossible except by means of canals and locks. By means of engineering skill remarkable for that age, these canals were constructed and are yet distinguishable, although not in use for nearly a century. What success this company did meet with passed away with the exodus of Washington as head of the organization to become the first President of our land. After years of existence it became evident that it would not be possible for the company to fulfill its obligations, but on account of the leniency of the two states, it carried on until 1819, when in a bad financial state it applied to the Board of Public Works of Virginia for relief.



Note: The C. and O. Canal is outlined in red ink.

- ★ State Capital
- HAGERSTOWN County Seat
- Frostburg City or large town
- Town or village
- +—+—+— Steam railroad
- Electric railroad



ENGRAVED AND PRINTED BY THE U.S. GEOLOGICAL SURVEY  
R. B. Marshall, Chief Geographer.  
A. F. Hassan, Cartographer.  
Compiled in 1912.

Edition of 1916, reprinted 1920

At this time work on the Erie Canal was being pushed, and the opinion was current that it would not be a bad plan to operate the route that the Potomac Company was supposed to cover by means of a "navigable canal." Accordingly, the Virginia Board, at the request of that state Assembly, conducted a survey and reported that it was practicable to build a canal from Georgetown to Cumberland, estimating the cost at \$1,114,300. How absurdly inadequate this estimate was may be realized when the cost of the canal to Cumberland, when completed, amounted to over \$11,000,000 to the State of Maryland, not including the \$4,000,000. that was subscribed to the project in its early days by the Federal Government, Virginia, and the District cities. After this preliminary survey, another one was conducted which calculated specifically on a canal thirty feet wide at the surface, twenty feet wide at the bottom, and deep enough for three feet of water, to be constructed on the Maryland shore. The estimate of this survey exceeded the first by a half-million dollars, but yet it is evident how inadequate this was. This may be accounted to the few points that were overlooked in the planning of this work. Since this canal was promoted by both Maryland and Virginia, it was necessary that it lie in the Potomac Valley, which is very narrow, sometimes being nothing more than a narrow gorge. Consequently this made it necessary that the canal be built on the margin of the river, exposing it to the violent freshets that oft occur in the Valley. Evidently the cost of giving permanence to the construction exposed to such dangers was not considered in the many estimates made on the cost of the canal.

With the reports of the Board of Public Works of Virginia as a basis, a bill incorporating the "Potomac Canal Company" passed the Virginia Assembly in February 1823, to supersede the Potomac Company, which was willing to surrender its charter under liberal terms. But this act failed to pass in the Maryland Assembly, no doubt on account of the prevailing fear that Baltimore would be robbed of the Western Trade that would drift down the canal. Action on this canal project was impossible without Maryland's indorsement, and yet the plan had its too many friends to be allowed to be dropped. Meetings were held in various localities by organizations, both commercial and political, expressing a spirit strongly in favor of such a canal. These meetings gave rise to a convention which met at the Capitol in Washington for three days in November, 1823. Virginia seemed the most interested in the project, while Pennsylvania and Ohio were not so enthusiastic. Dr. Joseph Kent of Prince George's County, Maryland was unanimously chosen President of the Convention. That the original objective in the promotion of this trade route was yet paramount may be realized by reviewing one of the resolutions at this convention: "Resolved, that it is expedient to substitute for the present defective navigation of the Potomac River above tide-water, a navigable canal from Cumberland to the Coal Banks at the Eastern base of the Alleghany and to extend such a canal as soon thereafter as practicable to the highest constant steamboat navigation of the Monangahela or Ohio River." The idea that the canal was to extend ultimately to Lake Erie was further expressed, thereby joining the Great Lakes to the Atlantic by this route.

The Convention planned to start construction at once. The cost was allowed at \$2,750,000., seemingly generous when compared to the estimates as placed by the Virginia and Maryland commissioners, when the only changes to be effected were to be the widening of the canal to forty feet and continuing the canal twenty six miles beyond Cumberland, a total distance of two hundred twelve miles. This allowance of nearly \$13,000. per mile was also very liberal when compared against those of other canals.

It was arbitrarily decided at this convention that the Federal Government should subscribe four-elevenths of this sum, equivalent to \$1,000,000., Virginia three-elevenths, the District cities two-elevenths, and Maryland two-elevenths. This arrangement of financial sources promised to meet with success for the Federal Government was at a prosperous stage, and also at this time was launched on an era of broadening its powers as strictly defined in the constitution so as to include an extended system of internal improvement. One more act this convention served to effect, and this was to adopt the name for the organization to be the Chesapeake and Ohio Canal Company, this name being more commensurable with the larger undertaking involved in joining those two bodies of water.

The resolutions adopted at this convention in November, 1823 constituted a form of charter very similar to the one of the Potomac Canal Company which had been previously passed on by the state of Virginia.

Virginia immediately passed the act of incorporation in January, 1824, but Maryland and Pennsylvania were not so prompt. The former state did not confirm the act until January, 1825, and not until it was guaranteed the right to tap this canal at some convenient point and lead an auxiliary canal from it to Baltimore. Congress sanctioned the act on March 3, 1825 and President Monroe signed it. The Potomac Company formally gave its consent in May, 1825, and Pennsylvania finally passed upon the act, on many conditions, in February, 1826. But this was not all: Amendments were passed from time to time which kept the slow working wheels of the legislative machinery working, not without its harmful effects on the project.

In his message to Congress in December, 1823, President Monroe recommended that Congress make an appropriation for a survey to be made by a corps of engineers of the territory under consideration. Action was prompt, and an appropriation of \$30,000 was made for a Board of Internal Improvement. General Simon Bernard was head of this Board, and with the thoroughness and love for exact detail of the strict military engineer, he conducted a survey that was marvelous even to its minutest details. The survey was divided into the two general subdivisions of the Chesapeake and Ohio Canal proper from tide-water in the Potomac to Pittsburg on the Ohio, and then the Ohio and Erie Canal, extending from Pittsburg through either Ohio or Pennsylvania to Lake Erie.

The first general subdivision was in turn divided into three sections of which the eastern section comprised the stretch from Georgetown to the mouth of the Savage River. The estimate for this eastern section alone was \$8,177,081.05. while the cost if carried to Pittsburg would amount to nearly \$22,500,000. This was what the Board reported in 1826. This report appalled the friends of the project, and as nothing could be done at such a high cost, another convention was called in Washington in December, 1826, at which it was decided to everyone's satisfaction that the canal from Georgetown to Cumberland could be built at half the cost as estimated by the United States engineers. This was confirmed by Messrs. Geddes and Roberts, topographic engineers, who in the spring of 1827, estimated that the cost would not reach the four and a half million sum.

Finally in October, 1827, the subscription books were opened. Three million, six hundred thousand dollars were subscribed to the project. Excluding outside subscriptions, Maryland subscribed \$500,000, Congress, \$1,000,000. and the District cities, consisting of Washington, Georgetown and Alexandria, \$1,500,000. At last the work on the Chesapeake and Ohio Canal could get under way!

The fourth of July of 1828 was a great day, for it was on that day that President Adams broke ground for the first great work of national improvement. The spot for the ceremony was chosen at the head of Little Falls, about five miles west of Georgetown, and the whole celebration was attended by festivity and merry-making. It may be noted,

if one pleases, that the canal was ill-<sup>omened</sup>~~owned~~, for when the President struck the spade into the ground it failed to bring up earth, for it struck on a root; a second attempt brought no better result, whereupon President Adams shed his coat and went to work to uproot the obstacle, amidst the great applause of the populace.

On the same day as ground was broken, marking the beginning of the canal, the venerable Charles Carroll of Carrollton, the only survivor of the signing<sup>ers</sup> of the Declaration of Independence, broke ground at Baltimore to mark the beginning of the Baltimore and Ohio Railroad. This organization was effected in order to bring the produce of the west to Baltimore as a trade center. It was the plan of this organization to run this road to the Point of Rocks and thence up the Potomac Valley on the Maryland shore to Harper's Ferry. At its inception this railroad was an ordinary road except for the fact that it had rails upon which the vehicles ran instead of the common roadbed, but as yet the locomotive was not known. This marks the beginning of the competition of canal against railroad for the commerce of the land.

Between the Point of Rocks and Harper's Ferry, the Maryland shore of the Potomac is so narrow due to cliffs, that at some points there was not enough room for both works, and the canal claimed primary rights. Months of litigation followed and in the end the canal interests won. But fortune was not smiling on the canal project. Great physical obstacles, the weather, and prices of labor and necessities, all had a share in the shower of misfortunes that it experienced. Circumstances forced the

canal to compromise with the railroad, by the latter buying a block of the canal's shares, for which it was allowed to continue the railroad to Harper's Ferry, but there to wait until the canal had reached Cumberland, if that were done by 1840.

The troubles of the canal project were augmented when in 1830 the Federal government refused to give further aid. Bankruptcy threatened in 1834, and Maryland came to the rescue with an appropriation of \$2,000,000 as a loan. The company required help again in 1835, and in June of that year, the canal was again appropriated \$3,000,000, but was required to allow the railroad to ascend up the Potomac Valley. Although the receipts of the canal amounted over \$40,000 a year, not even expenses could be paid, and in 1841, it required more help, which the state could not offer. Yet Maryland did not wish to see the millions that it had invested go to naught, so in 1844 it waived its various liens and allowed the Company to issue preferred bonds to the amount of \$1,750,000, giving the holders of the bonds as security a mortgage dated June 5, 1848. With this money the canal was finally completed to Cumberland in October, 1850.

When the canal at last reached Cumberland, the railroad was already reaching into the Ohio Valley, and the need which gave rise to the idea of the canal was already being satisfied much more efficiently and as economically by the railroad, especially with the advent of the locomotive. For this reason the revenues of the canal barely reached operating expenses. No interest was paid on the "bonds of 1844" after

July, 1864. In 1877 a freshet nearly ruined the canal and the company was unable to repair the damages on account of its bad financial condition. Maryland again came to the rescue with an ~~action~~ in 1878 waiving its liens and authorizing the company to issue preferred bonds to the amount of \$500,000. The repairs were made; no better luck was enjoyed by the company and in 1899 it was forced to again stop activities on account of damages done by another freshet. This time the trustees under the act of 1844 filed complaint against the Company requesting that receivers be appointed to operate the canal. After a period of complicated litigation of two years, involving the Company, the state of Maryland, and the trustees of the bondholders of the acts of 1844 and 1878, there resulted in placing the control of the canal in the hands of the trustees of the bondholders of the act of 1844, under mortgage of the Chesapeake and Ohio Canal Company, which was dated (as will be remembered) June 5, 1848. To this day the administration of the affairs of the canal are executed by these trustees, operating as the Canal Towage Company, and sometimes erroneously referred to by the old name as the Chesapeake and Ohio Canal Company.

In 1892, an act was passed by the General Assembly of Maryland authorizing the sale of the state's interest in the canal, but the matter was deferred from time to time until Governor Warfield's administration, (1904-1908), when the state sold its rights to the canal in a deal with the Baltimore and Ohio Railroad Company. This marked the end of Maryland's activity in the running of the canal.

First President Was an Enthusiastic Supporter of the Pawtommack Company, Which Was Succeeded by the Chesapeake and Ohio Canal Corporation—Washington Surveyed Land Through Which Waterway Extends and Contributed to Financing of Initial Work—Engineers of World Were Interested in Feat Accomplished—Future Value May Depend on Possibility of Widening and Deepening Channel of the Potomac.



Clubhouse on the Maryland side of the Potomac exactly opposite where Washington's locks and canal at Great Falls were located.



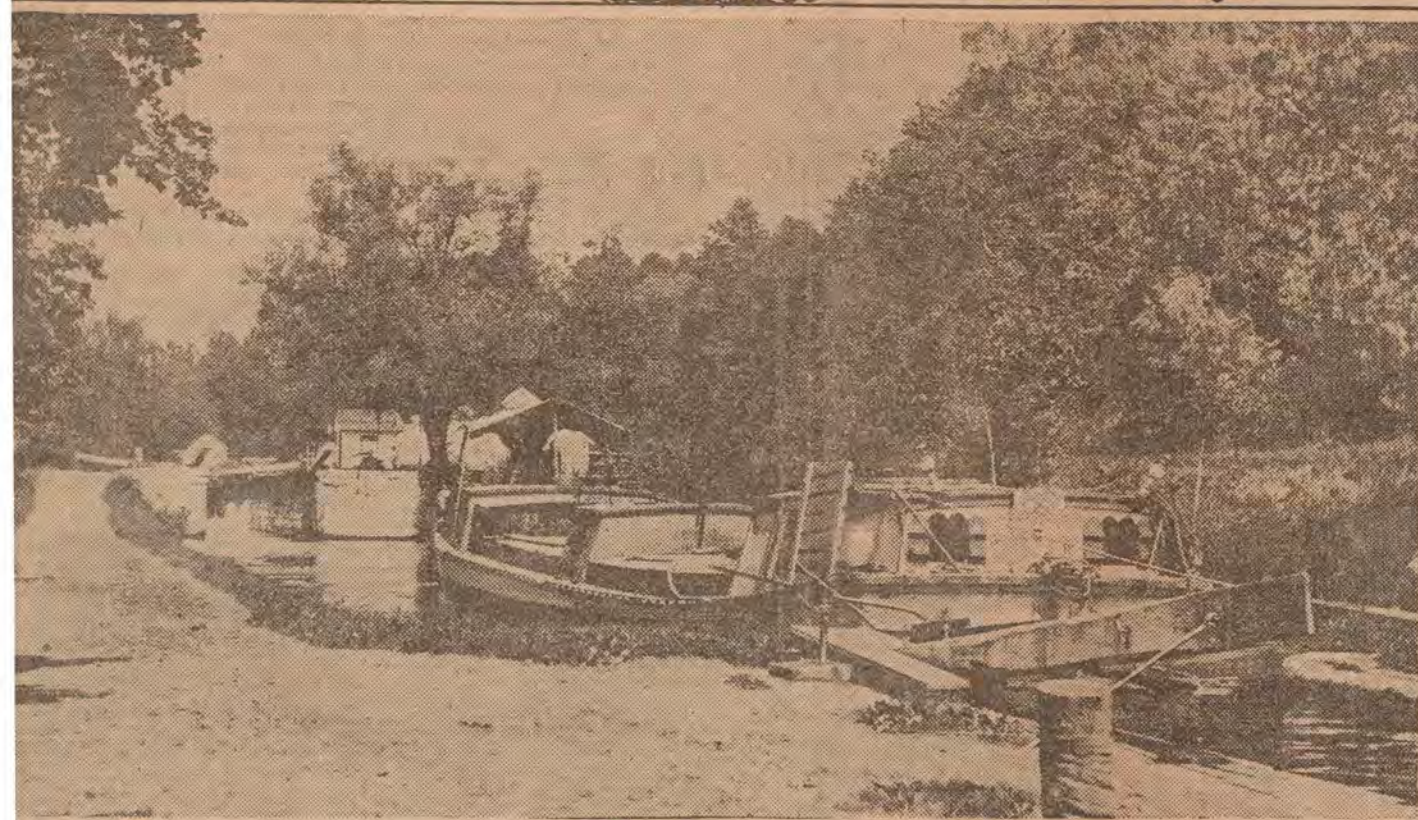
One of the dams of the Potomac which supplies water to the canal.



"Widewater Lake", Twelve miles from Georgetown.



The Canal can accomodate 350 boats each of 115 tons capacity.



The canal boats are hauled by mules. This boat has just passed through one of the locks.



There are 75 lift locks and two guard locks between Georgetown and Cumberland the difference in elevation between these two terminals of the canal is 578 feet.  
National Photos.

It is well to depart from the history of the canal for the present and look at it more from a physical viewpoint. The canal as it is now is far different from what it was when at first constructed. It originally continued from Georgetown and reached across the lower part of the city till it struck the Eastern Branch. This section, known as the Washington City Canal, was filled up in 1882. The canal was also carried across the Potomac by means of an aqueduct 1600 feet long to Rosslyn, where the canal was continued for seven miles to Alexandria. This may serve to enlighten one why the interest in canal when first planned was shared by the so-called District cities.

The subject of the canal is interesting from the standpoint of its construction. As contained in the reports of the Company, the distance from Cumberland to the Rock Creek Basin, where the canal empties at Georgetown, is quoted as one hundred eighty-five and five-eighths miles, with a difference in elevation between the points of five hundred eighty-seven feet. The width of the canal at the top varies from fifty-four to sixty-feet, and at the bottom from thirty to forty-two feet. There are seventy-four locks on the canal, these being one hundred feet long, fifteen feet wide, and having an average lift of eight feet. The water in the canal is drawn from the Potomac by seven dams with their feeders, and the capacity of the canal is estimated at 3,264,000 tons of water per year.

There are several aqueducts that carry the canal across rivers and ravines, a total of eleven as ascertained by a boatman on the canal. The two best known are the Cactocin Aqueduct at the Point of Rocks, ten miles below Harper's Ferry, and the Monacacy Aqueduct, thirty-eight miles from Washington by way of the towpath. This latter one is four hundred and thirty-eight feet long from one abutment to the other, and the masonry of the abutments and the winged walls extend ninety-six feet farther. The masonry of the two abutments and the six piers rest upon solid rock, which forms the bed of the river, and which had to be previously cleaned of the mud sediment. The arches of this construction are fifty-four feet in span and have a rise of nine feet. The canal across this aqueduct is nineteen feet wide and six feet deep. This part of the canal was constructed in 1831, and it was Judge Benjamin Wright, a great civil engineer in the employ of the Canal Company, who was mainly responsible for this feat. What an engineering accomplishment this was may be realized when it is known that the stone used was taken out of the quarry by hand drills, and that there was no steam hoist to put them into place. The magnificent character of the masonry was to assert itself in the years to come, when during the Civil War, the South was foiled in its attempts to destroy these aqueducts.

Another engineering feature of the canal is the tunnel that the canal passes through at Pawpaw Bend, twenty-seven miles below Cumberland. This tunnel through the mountains is 3118 feet long; it



Looking up the C. and O. Canal from below Chain Bridge

serves to shorten the route of the canal six miles, had it had to pass around this obstacle.

The canal is not without its scenic beauties; and it certainly played an important part in the making of history, particularly at the time of the Civil War. The following excerpt from the "Washington Star" of August 13, 1904, will bear out this statement: "Few places in this country and certainly none in this vicinity are more picturesque than the course of the canal as it winds through the rolling fields of Maryland into the heart of the Appalachian mountain range, where it flows calmly around the steep rocky bluffs and tunnels through the mountains, always with the charming sun-lit island-dotted Potomac by its side. The places along its way are famous for historical events as far back as the beginning of the republic; and surely none will forget the part it played in the great struggle between North and South, lying as it did between the contending sections. Many a time was the towpath trod by marching troops and many a report of 'All quiet along the Potomac' caused fear to subside in the capital city."

The recent history of the canal constitutes a very short chapter. In September, 1918, the United States Government put ten barges on the canal, which were operated by the Canal Towage Company. These barges were used to ship coal for the Navy from the coal fields to Indian Head. It was Congressman Zihlman of Maryland who at this time was active in bringing to the attention of the government the economic possibilities of the canal. In the spring of 1921 the Washington

Merchants and Manufacturers Association investigated the commercial potentialities of the canal. In addition to urging that the Navy continue shipping its coal by way of the canal, this body desired that the Kelly Springfield Tire Company at Cumberland obtain its raw materials by that route, so as to give the returning boats a load.

In such a manner the canal functioned until the spring of 1924, when a large freshet in the Potomac Valley incapacitated it totally in several places. For a time it was believed that the efforts to keep the canal in operation would not be made, but hearsay among those on the canal has it that the operating company will resume activity in the spring of 1925. At present the canal is idle.

Although the canal is quiet along its course, it is a live subject in the courts. It seems to be a particularly adaptable subject to litigation, its whole history being more or less interspersed with such activity. It is a shame that such a project, based on sound reasoning, should have had such adversities as to make it look foolish and impractical. Attribute that to the inefficiency of politics to cope with a problem that certainly would have been a greater success had it been promoted privately; or more reasonably, attribute it to the fact that the evolution of the Chesapeake and Ohio Canal was too slow for the progress of inventive and engineering skill, which directly gave rise to the birth of the railroad and locomotive, and which in turn served to place the utility of the canal in the background.

### The C. & O. Canal.

The Chesapeake and Ohio Canal, which extends from Cumberland to Georgetown, may not be used again. Its future is in doubt. This was given out a few days ago: "All breaks in the historic and picturesque canal made during the freshet several years ago have been entirely repaired and the waterway is ready for use on short notice should business develop which would warrant its opening."

A great many Washington people think of the canal with affection. It has been a factor in our scenery and life since the oldest men were young. The towpath has been a romantic walkway through delightful scenes. The locks and their keepers, the boats and the mules, and the boatmen, their wives and children have given pleasure. The photographs and sketches of "scenes on the canal" cannot be numbered. Picnic parties, walking parties and strollers, single and pairs, have used the towpath for a century. There can be no record of naturalists who have used the canal and its borders as a study ground. Canoeists came to think of the canal as a pleasure-way. Some of the lock-houses and their housekeepers became famous for meals for Sunday trippers. It would be sad were the old canal to pass.

Many new Washingtonians do not know how old the canal is and how important it was. On Thirty-second street where it crosses the canal is a monument which tells that it was commenced at Georgetown July 4, 1828, and completed to Cumberland October 10, 1850. The Potomac Improvement Company, chartered in 1784 through efforts of George Washington, opened navigation between tidewater and Cumberland by cutting short canals around Great and Little Falls and blasting channels through rocks at Seneca and Harpers Ferry. The company did not pay, and in 1818 on applying for relief to the Virginia Board of Public Works that board directed its chief engineer, Thomas Moore, to make a survey to determine the cost and feasibility of a canal from tidewater to the Allegheny Mountains. This plan had been discussed in the Virginia Assembly in 1816. Moore's report was made in 1820 and his estimate of cost was

*The Evening Star*  
*Thursday, February 7, 1926*

\$1,114,000. The Potomac Improvement Company was bankrupt in 1821. Sentiment in Virginia, Maryland and Pennsylvania favored the canal through the Potomac Valley and there was a convention on the matter at Washington in 1823. Because aid of the National Government was sought the Potomac Valley Canal became a national political question. Virginia and Maryland incorporated the canal company in 1824, the United States confirmed the incorporation. Pennsylvania committed itself to the canal and President Monroe signed the canal bill March 3, 1825. A board of engineers was appointed and proposed that the canal should be called the Chesapeake and Ohio Canal. It was to extend from Georgetown to Pittsburgh. The first spade of dirt was turned by President Adams July 4, 1828, near Little Falls. With various periods of suspension the canal has been in operation between Cumberland and Washington since 1850.



"SIGHTS ALONG THE CANAL"



"WHERE THE CANAL ENTERS ROCK CREEK"



"THE CANAL BED - DESERTED"



" THE CANAL AT HARPER'S FERRY "



" A FEEDER TO THE CANAL - ON THE LEFT "

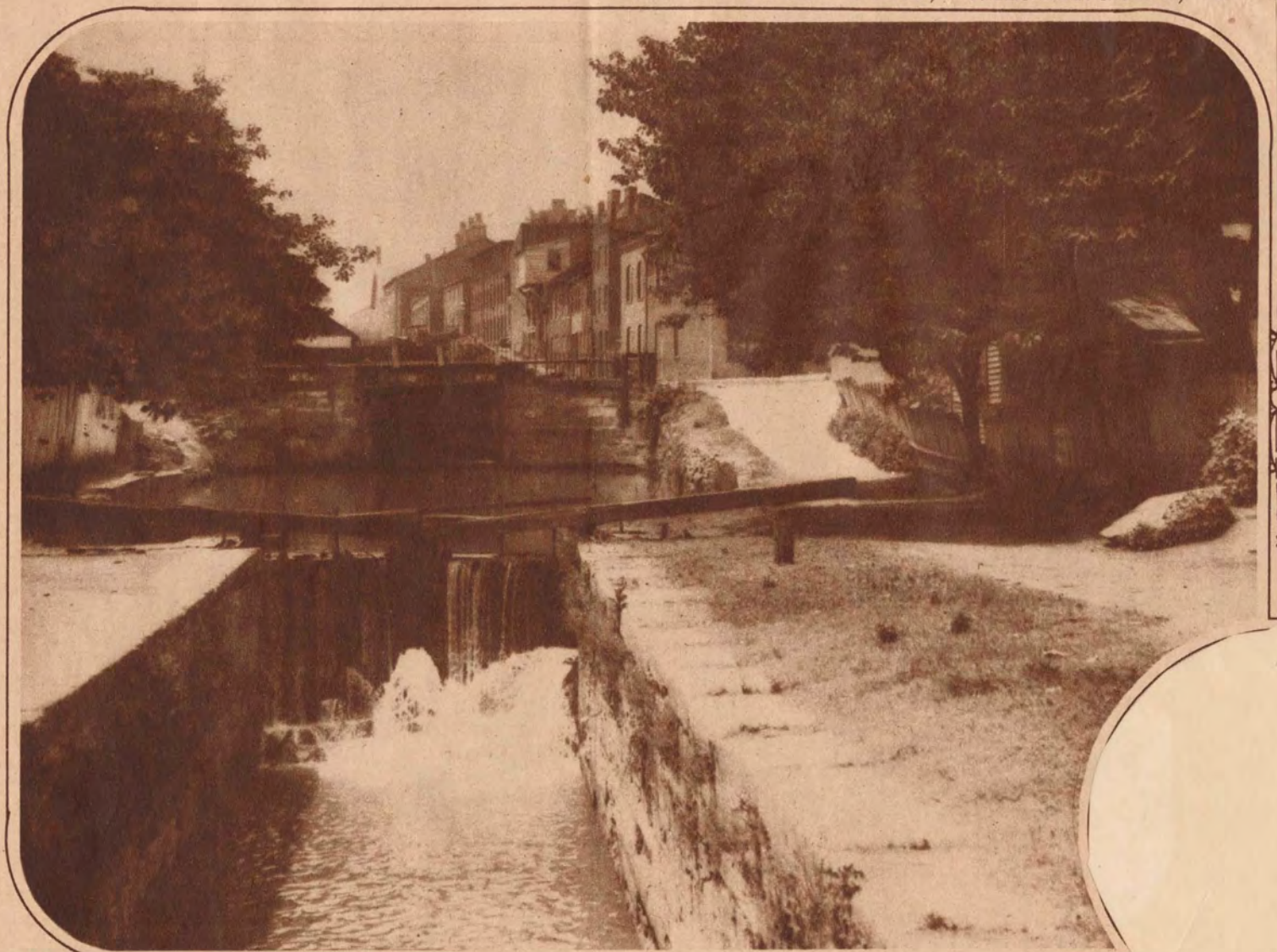


MONUMENT ABOVE CANAL AT WISCONSIN AVE.  
ERECTED IN 1850



"ONE OF THE AQUEDUCTS"

THE SUNDAY STAR, WASHINGTON, D. C.



"Along the Old Canal." One of the locks of the abandoned Chesapeake and Ohio waterway, long an important factor in transportation between the East and the West.

National Photo.

"ALONG THE OLD CANAL"